

Notice of Allowability

Application No.

10/680,286

Applicant(s)

CERVIN ET AL.

Examiner

Iqbal H. Chowdhury, Ph.D.

Art Unit

1652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/10/2007.
2. ☒ The allowed claim(s) is/are 1,3 and 8.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 8/14/07
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Application Status

Claims 1-8 are currently pending in the instant Office action.

In response to a previous Office action, a final action (mailed on April 10, 2007), applicants filed a response and an amendment on August 14, 2007, amending claims 1, 3 and 8, and canceling claim 2 is acknowledged. Claims 4-7 remain withdrawn.

Claims 1, 3 and 8 are under consideration and will be examined herein.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/10/2007 has been entered.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Christine M. Lhulier, the representative of the instant application on December 21, 2007.

Amend claims as follows:

Claim 1, part b), line 3, after “activity:” insert “wherein the up regulation is produced by a) by introducing additional copies of said gene into host cell followed by integration or b) by replacing native regulatory sequence with strong non-native promoter or altered native promoter”.

Claim 1, part c), line 3, after “activity:” insert “wherein the up regulation is produced by a) by introducing additional copies of said gene into host cell followed by integration or b) by replacing native regulatory sequence with strong non-native promoter or altered native promoter”.

Claim 8, part b), line 3, after “activity:” insert “wherein the up regulation is produced by a) by introducing additional copies of said gene into host cell followed by integration or b) by replacing native regulatory sequence with strong non-native promoter or altered native promoter”.

Claim 8, part c), line 3, after “activity:” insert “wherein the up regulation is produced by a) by introducing additional copies of said gene into host cell followed by integration or b) by replacing native regulatory sequence with strong non-native promoter or altered native promoter”.

Claim 8, part f), line 3, after “activity:” insert “wherein the up regulation is produced by a) by introducing additional copies of said gene into host cell followed by integration or b) by replacing native regulatory sequence with strong non-native promoter or altered native promoter”.

Claim 8, part g), line 3, after “activity:” insert “wherein the up regulation is produced by a) by introducing additional copies of said gene into host cell followed by integration or b) by

replacing native regulatory sequence with strong non-native promoter or altered native promoter”.

Claim 8, part h), line 3, after “activity:” insert “wherein the up regulation is produced by a) by introducing additional copies of said gene into host cell followed by integration or b) by replacing native regulatory sequence with strong non-native promoter or altered native promoter”.

Claims 4-7 are cancelled.

Allowable Subject Matter

Claims 1, 3 and 8 are allowed.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance: The applicant has claimed an E. coli strain comprising a disrupted endogenous phosphoenolpyruvate-glucose phosphotransferase system preventing expression of active PEP-glucose phosphotransferase system proteins; b) an up regulated endogenous galP gene encoding active galactose-proton symporter or galactose permease; c) an up regulated endogenous glk gene encoding active glucokinase; and d) a down regulated endogenous gapA gene encoding active glyceraldehyde 3-phosphate dehydrogenase, wherein the disrupted endogenous phosphoenolpyruvate-glucose phosphotransferase system comprises one or more of: i) disrupted endogenous ptsH gene preventing expression of active phosphocarrier protein; ii) disrupted endogenous ptsI gene preventing expression of active phosphoenolpyruvate-protein phosphotransferase; and iii) disrupted endogenous crr gene preventing expression of active glucose-specific IIA component,

whereby said E. coli strain is capable of bioconverting a suitable carbon source to 1,3-propanediol. A standard search did not produce any prior art that suggests or teaches the claimed invention. The claimed invention is novel and nonobvious over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

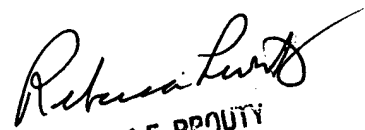
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Iqbal Chowdhury, Ph.D. whose telephone number is (571) 272-8137. The examiner can normally be reached on Monday-Friday from 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapura Achutamurthy, can be reached at (571) 272-0928.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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